**Supplementary Table 1**. Alpha diversity, non significant results obtained for each investigated variable with different tests and indices using all NT1 patients and controls samples.

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| --- | --- | --- | --- | --- |
| Indice | Test | Variable | p value | Statistics |
| Inverse Simpson | Wilcoxon rank sum test | Gender | 0.5026 | W = 779 |
| Medication | 0.2052 | W = 364 |
| Majority | 0.2158 | W = 379 |
| Diagnosis | 0.06801 | W = 893 |
| Long or short Disease duration | 0.5798 | W = 345 |
| Spearman's rank correlation test | BMI | 0.4631 | -0.08660817 |
| Age | 0.2248 | 0.1408749 |
| Disease duration | 0.1869 | 0.1823631 |
| Medication | 0.2044 | -0.1502833 |
| Observed richness  | Wilcoxon rank sum test | Gender | 0.3109 | W = 811.5 |
| Medication | 0.8208 | W = 302 |
| Majority | 0.5202 | W = 342 |
| Diagnosis | 0.1281 | W = 864 |
| Long or short Disease duration | 0.6085 | W = 342.5 |
| Spearman's rank correlation test | BMI | 0.08634 | -0.2007494 |
| Age | 0.7804 | 0.03251088 |
| Disease duration | 0.2236 | 0.1683589 |
| Medication | 0.8162 | -0.02768399 |
| Shannon | Wilcoxon rank sum test | Gender | 0.2019 | W = 837 |
| Medication | 0.2645 | W = 355 |
| Majority | 0.4694 | W = 347 |
| Diagnosis | 0.07814 | W = 887 |
| Long or short Disease duration | 0.7399 | W = 333 |
| Spearman's rank correlation test | BMI | 0.2249 | -0.1427968 |
| Age | 0.1583 | 0.163456 |
| Disease duration | 0.07464 | 0.2446139 |
| Medication | 0.1787 | -0.187555 |

**Supplementary Table 2**. Alpha diversity, results obtained for each investigated variable with different tests and indices using only NT1 patients’ samples.

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| --- | --- | --- | --- | --- |
| Indice | Test | Variable | P value | Statistics |
| Inverse Simpson | Wilcoxon rank sum test | Gender | 0.987 | W = 152 |
| Medication | 0.565 | W = 133 |
| Majority | 0.1851 | W = 104 |
| Long or short Disease duration | 0.558 | W = 113 |
| Spearman's rank correlation test | BMI | 0.4388 | -0.1347339 |
| Age | 0.6111 | 0.0890104 |
| Disease duration | 0.1781 | 0.2329338 |
| Medication | 0.5538 | -0.1035648 |
| Observed richness | Wilcoxon rank sum test | Gender | 0.5092 | W = 173.5 |
| Medication | 0.7771 | W = 109 |
| Majority | 0.9062 | W = 78 |
| Long or short Disease duration | 0.2317 | W = 127.5 |
| Spearman's rank correlation test | BMI | 0.6002 | -0.09174312 |
| Age | 0.3492 | 0.1631037 |
| Disease duration | 0.08293 | 0.2972219 |
| Medication | 0.7677 | -0.0.051786 |
| Shannon | Wilcoxon rank sum test | Gender | 0.6132 | W = 169 |
| Medication | 0.7527 | W = 126 |
| Majority | 0.8016 | W = 81 |
| Long or short Disease duration | 0.531 | W = 114 |
| Spearman's rank correlation test | BMI | 0.6474 | -0.07983193  |
| Age | 0.2166 | 0.2141857 |
| Disease duration | 0.03831 | 0.3516459 |
| Medication | 0.7396 | -0.05825517  |